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DANIEL E. JOHNSON IBM CORPORATION, ALMADEN RESEARCH CENTER INTELLECTUAL PROPERTY LAW DEPT. C4TA/J2B 650 HARRY ROAD SAN JOSE, CA 95120-6099			EDWARDS JR, TIMOTHY	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/991,140  
Filing Date: November 16, 2001  
Appellant(s): KANDOGAN ET AL.

**MAILED**

**APR 17 2006**

**GROUP 2600**

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Daniel E. Johnson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed February 14, 2006 appealing from the Office action mailed September 20, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,555,193	Stone	10-1985
4,585,908	Smith	4-1986
4,988,997	Prame	1-1991
WO 94/15431	Novel et al	7-1994

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 1-37 are rejected under 35 U.S.C. 103(a).** this rejection is set forth in prior office action dated September 18, 2005.

Claims 1-25,28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone '193 and further in view of Novel et al WO 94/15431 and Smith '098.

Considering claim 1, Stone discloses keyboards including color coding and one handed operation comprising, a) a plurality of characters displayed on the keys have associated markings such that any given character marking on that key is uniquely identified with a single displayed character (see fig 1, items 14a-14d); b) a plurality of keys having respective markings that visually match character markings (see fig 1, items 14a-14d

and 16a-16d); c) selecting a first character, having a first marking, displayed on a first one of 8 keys and then selecting a key displaying the first marking (see col 2, lines 19-31); d) selecting a second character, having a second marking, displayed on a first one of 8 keys and then selecting a key displaying the second marking, keys displaying the first and second marking are different (see col 3, lines 29-40); e) except Stone does not specifically recite numeral 0 through 9 are inclusive displayed on a respective one of the keys and at least 8 of the numeral-displayed keys further have language character displayed thereon. Stone addresses in col 1, line 43 to col 2, line 2 the need for a telecomputing one-handed, pocket sized device having a full typewriter keyboard which can be used to send and receive messages and enter alphanumeric characters. Stone suggests in col 6, lines 34-38 the varying of his invention to include rearranging the numbers and the location of the fields and changing the lettering and coloring to suit a particular device. Novel teaches on page 11 the use of a portable telecomputer device having a telephone keypad as a data input means. The telephone keypad is a device having numeral 0 through 9 inclusive displayed on a respective one of the keys and at least 8 of the numeral-displayed keys further have language character displayed thereon. Therefore, it would have been obvious to one of ordinary skill in the art to modify the input means of Stone and arranged the input means to have numeral 0 through 9 inclusive displayed on a respective one of the keys and at least 8 of the numeral-displayed keys further have language character displayed thereon as taught by Novel because Stone states the use of his input method in a telecomputing device and suggests this type of modification in col 6, lines 34-38; f) With respect to the limitation

'selecting a first key with a user's finger or stylus and then selecting a key displaying the first marking with a user's finger or stylus'. Stone discloses concurrent key selection.

This limitation does not preclude the concurrent touching of two keys by a users finger.

However, Stone suggests in col 3, lines 10-12 and col 5, lines 48-50 "electronics for producing the combinatory encoding for his terminal can be achieved by methods known to those in the art." Smith teaches in fig 2 the use of a telephone keypad to enter alphanumeric data by activating two keys sequentially (i.e. selecting a first key then selecting a second key). Applicant admits in his specification on page 3, lines 9-19 the method of selecting a first key then selecting a second key is well known in the art.

Therefore, it would have been obvious to one of ordinary skill in the art to use any known method of inputting data by the selection of two keys in the Stone system as admitted by applicant and as taught by Smith because Stone suggests the use of electronics for producing the combinatory encoding for his terminal can be achieved by methods known to those in the art.

Considering claim 2, Stone discloses the limitation of this claim in col 2, lines 19-40.

Considering claim 3, Stone discloses the limitation of this claim in fig 1.

Considering claim 4, Stone discloses the limitation of this claim in col 2, lines 26-31.

Considering claim 5, the limitation of this claim is interpreted and rejected as stated in part (e) of claim 1.

Considering claim 6, Stone discloses the limitation of this claim in fig 1.

Considering claims 7-11,32-37 the limitations of these claims are interpreted and rejected as stated in part (e) of claim 1.

Considering claims 12,18,19 Stone discloses the limitations of these claims in fig 1.

Considering claim 13, the limitation of this claim is interpreted and rejected as stated in claim 1.

Considering claim 14, Stone discloses the limitation of this claim in fig 1.

Considering claims 15-17,20-22 the limitations of these claims are interpreted and rejected as stated in part (e) of claim 1.

Considering claim 23, Stone discloses the limitation of this claim see col 4, lines 53-56 and col 5, lines 50-59.

Considering claim 24, the limitation of this claim is interpreted and rejected as stated in claim 1. With respect to selecting a second key with letter free regions having a color that matches the first selected letter (see Stone fig 1, items 18b and 18c).

Considering claim 25, the limitation of this claim is interpreted and rejected as stated in claim 1 and in col 5, lines 48-60.

Considering claim 28-31, the limitations of these claims are interpreted and rejected as stated in claim 1, part (e).

Claims 26,27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone, Novel and Smith as applied to claims 23 and 25 above, and further in view of Prame '997.

Considering claim 26 and 27, Stone does not specifically recite computer program including code for generating a character corresponding to two keys pressed on a color-coded keyboard. However, Stone discloses in col 3, lines 10-12 "The keyboard may be electronically implemented by any appropriate means known to those skilled in the art." The use of means to convert key sequence into characters is well known in the art. Prame teaches in col 2, lines 16-25 the use of a microcomputer means to convert key sequence into characters. This would suggest means to convert key sequence into characters of keys is within the scope of the Stone system because Stone discloses



transmitting and receiving messages and both references are concern with the use of two keys to enter a character. Stone suggests the use of any appropriate means known in the art.

### **(10) Response to Argument**

#### **Claim 1**

With respect to claim 1, Applicant argues, A) claim 1 is directed to “each of at least 8” numeral-displaying keys having language characters thereon. Claim 1, further stipulates that a particular two-key sequence is to be used, with the sequence being suggested by the color-coded or pattern-code arrangement itself. Trying to apply Stone’s methodology to any layout specified by the language of claim 1, leads to problem with **disambiguation** (emphasis added), because in general there will be at least a few keys with too many symbols; B) the Examiner has taken the approach of associating various elements in claim 1 with respective references in the prior art and asserting that combining these references leads to Applicant’s claimed subject matter. C) Stone does not work with a 3X3 matrix keypad of letters and language characters (such as those of Novel and Smith) since the methodology of Stone would not permit the language characters of a 3X3 matrix keypad to be **disambiguated** (emphasis added). D) the user of method of claim 1 makes a key selection with his fingers or stylus, and then uses **the same finger (or stylus)** (emphasis added) to make another selection. E) Stone requires that a two-key selection step involve the concurrent selection of two keys. F) Stone does not suggest changing the number of keys. G) Stone nowhere suggests that

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anything other than a concurrent actuation arrangement is contemplated when two keys are used to make a selection. H) Modifying Stone would change its principle of operation. I) neither Novel nor Smith discusses any disambiguation arrangement that relies on color-coded or pattern-coded keys.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., solving **disambiguation** and the use of **the same finger** (emphasis added) are not recited in the rejected claim(s). Examiner cannot find the phrase "**the same finger**" in the specification. Although, the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to Applicant's argument of claim 1, part (A) 'each of at least 8 numeral-displaying keys having language characters thereon' is not specifically recited by Stone, Examiner redirects attention to col 6, lines 34-38. Stones **suggest the modification** (emphasis added) of his device (i.e. **For example**, the number and the location of the fields may be rearranged, and the lettering and coloring may be changed to suit the **particular device** (emphasis added)). The phrase "changed to suit a particular device" is interpreted by the Examiner to refer to any device having a keyboard to enter alphanumeric data, regardless of the number of keys on the device. Stone further teaches the use of his data inputting method in a hand-held telecomputing

device. Telecomputing devices could be a cell phone, Personal Digital Assistance or any other device used for telecommunication and computing functions.

With respect to the argument Claim 1, further stipulates that a particular two-key sequence is to be used, with the sequence being suggested by the color-coded or pattern-code arrangement itself. Stone teaches this in col 3, lines 38-43 and col 4, lines 53-56. The color-coded keys makes the two key combinations unambiguous is suggested by the keyboard itself (see col 2, lines 20-39 and Abstract).

With regards to the argument, the methodology differences between the present application and prior art (Stone), Examiner redirects attention to col 3, lines 10-12 and col 5, lines 48-50 **Stone suggests** (emphasis added) the keyboard of his device may be electronically implemented by any appropriate means known to those skilled in the art and the electronics for producing the combinatory encoding can be achieved by methods known to those in the art.

With respect to argument of claim 1, part (B) the Examiner has taken the approach of associating various elements in claim 1 with respective references in the prior art and asserting that combining these references leads to Applicant's claimed subject matter. Stone teaches the implementation of his input method in a telecomputing device and suggest the number and the location of the fields may be rearranged, and the lettering and coloring may be changed to suit the particular device. Stone suggests the keyboard of his device may be electronically implemented by any appropriate means known to those skilled in the art and the electronics for producing the combinatory encoding can be achieved by methods known to those in the art. The

teaching and suggestions of the Stone reference was the motivation for combining references to reject applicant's claimed subject matter.

With respect to the argument of claim 1, part (C) Stone does not work with a 3X3 matrix keypad of letters and language characters (such as those of Novel and Smith) since the methodology of Stone would not permit the language characters of a 3X3 matrix keypad to be disambiguated. Stone teaches the use of his method of inputting data in a hand-held telecomputing device. Telecomputing devices could be a cell phone, Personal Digital Assistance or any other device used for telecommunication and computing functions. Therefore, Stone suggests the use of his input method using a 3X3 matrix keypad because Stone teaches the use of his method of inputting data in a hand-held telecomputing device. Novel reference was used to provide evidence that a 3X3 keypad matrix is used to input data in a telecomputing device.

With respect to the argument of claim 1, part (D) the user of method of claim 1 makes a key selection with his fingers or stylus, and then uses **the same finger** (emphasis added) to make another selection is not recited in the rejected claim(s) nor is this phrase found in the specification.

With respect to the argument claim 1, part (E) Stone requires that a two-key selection step involve the concurrent selection of two keys. Applicant states, in part (A) above "Claim 1, further stipulates that a particular two-key sequence is to be used, with the sequence being suggested by the color-coded or pattern-code arrangement itself". Stone teaches this method. Applicant does not preclude the concurrent activation of two-keys as the sequence to be used in the present application (as claimed by claim 1).

Therefore, this method is functionally addressed by the Stone disclosure. Smith reference was used to provide evidence that a telephone keypad to enter alphanumeric data by activating two keys sequentially (i.e. selecting a first key then selecting a second key). Applicant admits in his specification on page 3, lines 9-19 the method of selecting a first key then selecting a second key is well known in the art.

With respect to the argument claim 1, part (G) Stone nowhere suggests that anything other than a concurrent actuation arrangement is contemplated when two keys are used to make a selection. Examiner redirects attention to col 3, lines 10-12 and col 5, lines 48-50 Stone suggests the keyboard of his device may be electronically implemented by any appropriate means known to those skilled in the art and the electronics for producing the combinatory encoding can be achieved by methods known to those in the art.

With respect to the argument claim 1, part (H) Modifying Stone would change its principle of operations. Stone teaches the implementation of his input method in a telecomputing device and suggest the number and the location of the fields may be rearranged, and the lettering and coloring may be changed to suit the particular device. Stone suggests the keyboard of his device may be electronically implemented by any appropriate means known to those skilled in the art and the electronics for producing the combinatory encoding can be achieved by methods known to those in the art. The teaching and suggestions of the Stone reference was the motivation for combining references and would not change the Stones principle of operation which is "to obtain a character printed on a key, the user will look to the field of keys to which this key

belongs to find the key having a background color identical to the color of the desired character" (col 4, lines 53-56).

With respect to the argument claim 1, part (I) neither Novel nor Smith discusses any disambiguation arrangement that relies on color-coded or pattern-coded keys. In response to applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, teaching, suggestion and motivation to combine the cited references were found in the Stone reference.

### **Claims 2 and 3**

With respect to claims 2 and 3, Stone addresses the limitations of these claims. See part (9) above. With regards to Applicant argument, Stone is not directed to sequential key selection and cannot be made to work with sequential key selection. Examiner is of the opinion sequential key selection does not preclude concurrent key selection because in concurrent key selection one key is pressed and then a second key is pressed. Examiner believes the distinction is when the keys are released.

**Claim 4**

With respect to claim 4, Stone addresses the limitation of this claim. See part (9) above.

With regards to Applicant argument, Stone is not directed to sequential key selection and cannot be made to work with sequential key selection. Examiner is of the opinion sequential key selection does not preclude concurrent key selection because in concurrent key selection one key is pressed and then a second key is pressed. Examiner believes the distinction is when the keys are released.

**Claims 5-8**

With respect to claims 5-8, Stone, in view of Novel, addresses the limitations of these claims. See part (9) above. With regards to Applicant argument, Stone methodology cannot applied to input means comprising a 3X3 matrix of keys. In claim 1, part (e) the use of a 3X3 matrix keypad in the Stone device was addressed. Stone teaches the use of his data input method in a telecomputing device. Novel teaches the use of a portable telecomputer device having a telephone keypad (i.e. 3X3 matrix) as a data input means. Therefore, it would have been obvious to one of ordinary skill in the art to modify the input means of Stone and arranged the input means to have numeral 0 through 9 inclusive displayed on a respective one of the keys and at least 8 of the numeral-displayed keys further have language character displayed thereon as taught by Novel because Stone express the desire to use his data input method in a telecomputing device and suggests this type of modification.

**Claim 9**

With respect to claim 9, Stone, in view of Novel, addresses the limitation of this claim.

See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 5-8.

**Claim 10**

With respect to claim 10, Stone, in view of Novel, addresses the limitation of this claim.

See part (9) above. With respect of Applicant's argument, of methodology, see Examiner's reply with respect to claims 5-8. with respect to Applicant's argument of the significant of the specific color-code and pattern-code arrangements, it is noted that the features upon which applicant relies (i.e. color-code and pattern-code arrangements) are not recited in the rejected claim(s). Although, the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

**Claim 11**

With respect to claim 11, Stone, in view of Novel, addresses the limitation of this claim.

See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 5-8.



**Claim 12**

With respect to claim 12, Stone addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 5-8.

**Claims 13, 14, 18 and 19**

With respect to claims 13, 14, 18 and 19 Stone, and Stone, in view of Novel, addresses the limitations of these claims. See part (9) above. With respect of Applicant's argument, of methodology, see Examiner's reply with respect to claims 5-8. with respect to Applicant's argument of the significant of the specific color-code and pattern-code arrangements, it is noted that the features upon which applicant relies (i.e. solving disambiguation, color-code and pattern-code arrangements) are not recited in the rejected claim(s). Although, the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

**Claim 15**

With respect to claim 15, Stone in view of Novel, addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 5-8.

**Claims 16 and 17**

With respect to claims 16 and 17, Stone, in view of Novel, addresses the limitations of these claims. See part (9) above. With respect of Applicant's argument, of methodology, see Examiner's reply with respect to claims 5-8. with respect to Applicant's argument of the solving disambiguation, it is noted that this feature upon which applicant relies (i.e. solving disambiguation) is recited in the rejected claim(s). Although, the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

**Claim 20**

With respect to claim 20, Stone in view of Novel, addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 5-8.

**Claim 21**

With respect to claim 21, Stone in view of Novel, addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 16 and 17.

**Claim 22**

With respect to claim 22, Stone in view of Novel, addresses the limitation of this claim.

See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 13,14,18 and 19.

**Claim 23**

With respect to claim 23, Stone addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claim 4.

**Claim 24**

With respect to claim 24, Stone in view of Novel, addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 13,14,18 and 19.

**Claim 25**

With respect to claim 25, Stone in view of Novel, addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 13,14,18 and 19.

**Claim 26**

With respect to claim 26, Stone in view of Novel and Preme, addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 25.

**Claim 27**

With respect to claim 27, Stone in view of Novel and Preme, addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 23.

**Claims 28 and 30**

With respect to claims 28 and 30, Stone, in view of Novel, addresses the limitations of these claims. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 5-8.

**Claims 29 and 31**

With respect to claims 29 and 31, Stone, in view of Novel, addresses the limitations of these claims. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 16 and 17.

**Claim 32-34, 36,37**

With respect to claims 32-34,36,37 Stone, in view of Novel, addresses the limitations of these claims. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claims 5-8 and 10.

**Claim 35**

With respect to claim 35, Stone, in view of Novel, addresses the limitation of this claim. See part (9) above. With respect of Applicant's argument, see Examiner's reply with respect to claim 10.

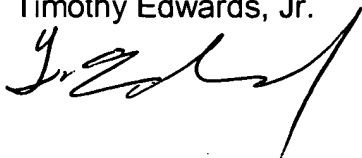
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,

Timothy Edwards, Jr.

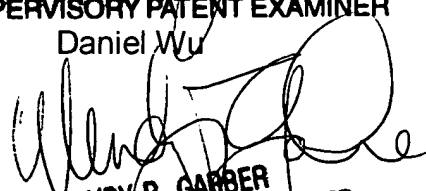


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